

2000 XP

Contents

Key Combinations	2
LED Indicators	3
Touch Pad	4
Standby/Hibernation Functions	6
Security Measures	10
Computing on the Road	14
Battery Power	16
SD-MovieStage	20
PC Cards	21
SD Memory Card/MultiMedia Card	22
RAM Module	29
External Display	30
USB Devices	31
Modem	32
LAN	34
Setup Utility	36
Technical Information	42
DMI Viewer	43
List of Error Codes	44
Dealing with Problems (Advanced)	46

Illustrations in this Reference Manual

NOTE:

NOTE provides a useful fact or helpful information.

CAUTION:

CAUTION indicates a condition that may result in minor or moderate injury.

WARNING:

WARNING indicates a hazard that may result in moderate or serious injury.

Windows 2000 :

Information for Microsoft Windows® 2000 Professional users.

Windows XP :

Information for Microsoft Windows® XP Professional users.

[Enter] :

This illustration means to press the [Enter] key.

[Fn] + [F5] :

This illustration means to press and hold the [Fn] key, then press the [F5] key.

[Start]* - [Run]:

This illustration means to click [Start]*, then to click [Run].

(For some applications, you may need to double-click.)

* **Windows XP** : [start]

 **page:**

When the cursor is moved to an item under [Contents] or to  **page** (green display), the shape of the cursor will change to . Under this condition, if characters are tapped (or a click is made), the corresponding page in the Reference Manual will be displayed.

  :

This illustration means to refer to the Operating Instructions.

● Windows 2000 screens are used in this manual when no specific OS notes are required.

● Some of the illustrations in this manual may differ slightly in shape from the actual items in order to make the explanation easier to understand.

NOTE

If the user has logged on without the administrator authority, some functions may not be executable, and some screens may not be displayed as shown in this manual. If this happens, log on with the administrator authority to enable these functions.

Key Combinations

CAUTION

- Do not press the following key combinations repeatedly in (quick) succession.
- Do not press the following key combinations while using the touch pad (mouse) or other keys.

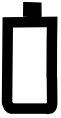
NOTE

Windows XP

When switching to a different user with the Fast User Switching function, these key operations may not work. In this case, log on with the administrator authority again, not using the Fast User Switching function, and try the operation once more.

Key	Functions	Popup Window
(Fn) + (F1) (Fn) + (F2)	LCD brightness control (▼down) LCD brightness control (▲up)	
(Fn) + (F3)	Display change By pressing this key combination, you can select either an external display, LCD or simultaneous. ( page 30)	
(Fn) + (F4)	Speakers on/off switch Pressing this key combination turns on/off audio from the internal speakers and headphone jack. Rebooting the computer, or powering off then on, restores the speaker setting of the Setup Utility.	 OFF  ON
(Fn) + (F5) (Fn) + (F6)	Volume control (▼down) Volume control (▲up)	 
(Fn) + (F7)*	Power off using the standby function Pressing this key combination causes the current screen on the display to be saved to memory, and powers off the computer. ( page 7)	
(Fn) + (F9)	Remaining capacity of the battery pack Pressing this key combination displays the remaining battery capacity on the screen. ( page 16)	 Remaining capacity (%) display  Battery pack is not inserted.
(Fn) + (F10)*	Power off using the hibernation function Pressing this key combination causes the current screen on the display to be saved to the hard disk, and powers off the computer. ( page 7)	

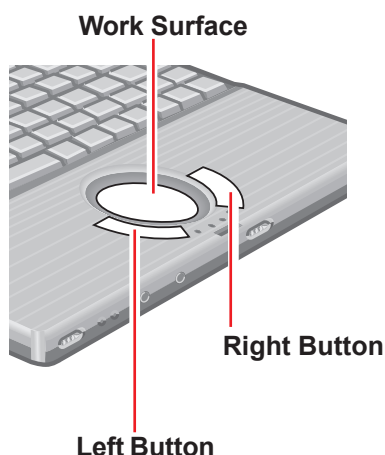
* When [Disable] is set for [Fn+F7/Fn+F10 Key] with the Setup Utility, this key combination becomes inoperable.

	Caps Lock	This indicator lights green when Caps Lock is pressed. Subsequent non-shifted input is capitalized.
	NumLk (Numeric key)	These indicators light green when NumLk is pressed. This causes a portion of the keyboard to function as a numeric keypad. The [Enter] key functions differently depending on the application.
	ScrLk (Scroll lock)	This indicator lights green when ScrLk is pressed. Scroll lock functions differently depending on the application.
	Hard disk drive status	This indicator lights when the hard disk drive is accessed.
	SD memory card status	This indicator lights when the SD memory card or MultiMedia Card is accessed.
	Power status	Not lit : Power off / Hibernation mode Green ●: Power on Blinking green ●: Standby mode
	Battery pack status	Not lit : AC adaptor or battery pack not connected or charging not being performed. Orange ●: Charging in progress. Green ●: Charging finished. Red ●: Battery is low (remaining battery capacity is approx. 9% or less). Blinking red ●: Battery pack or charging malfunction. Blinking orange ●: Unable to recharge due to violation of temperature limits. (The ambient temperature is outside the allowable range. Once the allowable range requirement is satisfied, charging begins automatically.)

Use the touch pad to move the cursor on the display and perform normal computer operations.

NOTE

By design the touch pad is to be used with a finger tip only. Therefore, do not use any other type implement on the touch pad, i.e. stylus, pen, or pencil eraser.



Function	Touch Pad Operation
Moving the Cursor	 Move the tip of your finger lightly over the surface.
Tapping/Clicking	 tapping or  clicking
Double-Tapping/ Double-Clicking	 double-tapping or  double-clicking
Dragging	 Two quick taps, but on the second tap leaving your finger down (applying pressure) and moving it on the work surface. or  While holding down the button, moving your finger on the work surface
Scroll	 Trace the circumference of the work surface.

NOTE

Refer to [Mouse Properties]* for information on basic operations other than the above.

* **Windows 2000** : [Start] - [Settings] - [Control Panel] - [Mouse]

Windows XP : [start] - [Control Panel] - [Printers and Other Hardware] - [Mouse]

Handling the Touch Pad

- Do not place any object on the work surface or press down forcefully with sharp-pointed objects (e.g., nails) or hard objects that can leave marks (e.g., pencils and ball point pens).
- Try to avoid having any harmful substances such as oil, come in contact with the touch pad. The cursor may not work properly in such cases.
- When the touch pad becomes dirty:
Wipe to remove dirty areas by using a dry soft cloth such as gauze or a soft cloth first applied with detergent diluted with water and then thoroughly wrung.
Do not use benzene or thinner, or disinfectant-type alcohol.

Starting Up Your Computer Quickly

If you use the standby or hibernation function, you can shut down the computer without closing programs and documents. Upon restarting your computer from either the standby or hibernation mode, you can immediately continue working in all programs, or documents that were open at the time the computer was placed into standby or hibernation mode.

● Differences between the standby and hibernation functions

Function	Standby function	Hibernation function
Where data is saved to	Memory	Hard disk
Speed	Fast	Somewhat slow
Requires power supply	Yes (if power is cut, all data is lost)	Power is not required to maintain data

NOTE

If the computer will not be operated for an extended period of time, it is recommended that hibernation mode be used instead of the standby mode.

Setting for Initiating the Standby or Hibernation Function Using the Power Switch

Windows 2000

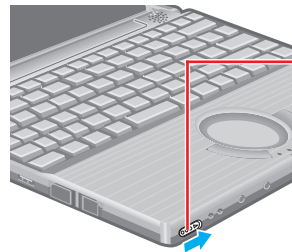
- 1** Select [Start] - [Settings] - [Control Panel] - [Power Options], in [Hibernate] add the check mark for [Enable hibernate support] and select [Apply]
- 2** In [Advanced], select [Standby] or [Hibernate] for [When I press the power button on my computer:], then select [OK]

Windows XP

- 1** Select [start] - [Control Panel] - [Performance and Maintenance] - [Power Options], in [Hibernate] add the check mark for [Enable hibernation] and select [Apply]
- 2** In [Advanced], select [Stand by] or [Hibernate] for [When I press the power button on my computer:], then select [OK]

Shutting Down Using the Standby or Hibernation Function

The computer should be set for standby or hibernation function. (☞ page 6).



Slide the power switch; at the "beep*" sound, release your finger

(After releasing your finger from the power switch, do not touch the power switch until the power indicator goes off or blinks.)



CAUTION

At the "beep*" sound, release your finger from the power switch. If you continue to slide the switch and hold it for more than four seconds, the computer will emit a second "beep*" then power off. Data not previously saved will be lost.

Windows 2000

Even if, [When I press the power button on my computer:] is set to [Power Off] with [Control Panel] - [Power Options] - [Advanced], the power switch is slid for more than four seconds and is not released, a second "beep*" will sound and the power will go off, although the computer will not completely shut down.

Windows XP

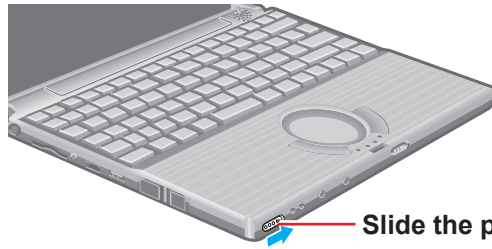
Even if, [When I press the power button on my computer:] is set to [Shut down] with [Control Panel] - [Performance and Maintenance] - [Power Options] - [Advanced], the power switch is slid for more than four seconds and is not released, a second "beep*" will sound and the power will go off, although the computer will not completely shut down.

* When the speaker function is disabled, e.g., by setting [Disable] for [Speaker] with the Setup Utility (☞ page 37) or by the key combination **(Fn) + (F4)**, there will be no beep sound.

NOTE

- With the method below, you can shut down the computer by using the standby function.
 - **(Fn) + (F7)** (☞ page 2)
 - **Windows 2000**
In [Start] - [Shut Down], select [Stand by].
 - **Windows XP**
In [start] - [Turn Off Computer], select [Stand By].
- With the method below, you can shut down the computer by using the hibernation function.
 - **(Fn) + (F10)** (☞ page 2)
 - **Windows 2000**
In [Start] - [Shut Down], select [Hibernate].
 - **Windows XP**
In [start] - [Turn Off Computer], press and hold **(Shift)**, then select [Hibernate].

Resuming Operation



When [Standby]* or [Hibernate] is selected as the setting for [When I close the lid of my portable computer:], the computer will enter either the standby or hibernation mode when the display is closed. Operation will resume when the display is opened. Even if the display is closed after the computer has entered either the standby or hibernation mode, operation will resume when the display is opened. If the computer does not resume when the display is opened, slide the power switch.

* **Windows XP** : [Stand by]

CAUTION

- After the display returns, the computer needs a short period of time to reinitialize. This takes about 15 seconds. Do not shut down or restart Windows, or enter either the standby or hibernation mode again during this time, as this may subsequently cause Windows to operate abnormally.
- When operation resumes, devices such as a mouse, modem or PC Cards may not function properly. In such cases, you will need to restart your computer or reinitialize the individual devices.
- Avoid the following until the power is completely turned off when turning off the computer by using the standby or hibernation functions, or resuming operation from the standby or hibernation.
 - Touch the keyboard (excluding password input), touch pad, or power switch.
 - Connect or disconnect the AC adaptor.
 - Close or open the display.
- Even when a password has been set in the Setup Utility,  does not appear when the computer resumes from the standby or hibernation mode. If you want to use the security function when using the standby or hibernation mode, use the Windows password as follows:

Windows 2000

Set the password in [Control Panel] - [Users and Passwords], then add the check mark for [Prompt for password when computer goes off standby] in [Control Panel] - [Power Options] - [Advanced].

Windows XP

Select the account to change in [Control Panel] - [User Accounts] and set the password, then add the check mark for [Prompt for password when computer resumes from standby] in [Control Panel] - [Performance and Maintenance] - [Power Options] - [Advanced].

Precautions for Using the Standby or Hibernation Function

- Do not use the standby or hibernation function when using the network function.
- Save all data before powering off your computer.
- When restarting from or shutting down to the standby or hibernation mode, do not touch the touch pad (or move the mouse if one is connected). These devices may fail to operate, you will then need to restart your computer using the keyboard.
- Do not enter the standby or hibernation mode during the following periods (you may corrupt your data or file):
 - While the floppy disk drive is being accessed, or hard disk drive indicator () or SD memory card indicator () is on.
 - While playing/recording audio files and playing an MPEG file.
 - While communications software is being used.
- Do not enter the standby or hibernation mode during the following periods. The standby or hibernation function may not work, or the computer (or peripherals) may fail to work properly.
 - When a file in an external device such as a CD-ROM drive, external hard disk, or ATA card is opened, the standby or hibernation function may not work. In such cases, close the file.
 - LAN cards (port), SCSI cards and modem cards (port) etc. may not recover after entering the standby or hibernation mode. If this occurs, restart the computer.
 - When a USB device is in use or is connected to the computer (note: only for some USB devices). If this occurs, remove the USB device temporarily and restart the computer.
- If you hold down on **(Alt)**, **(Ctrl)** or **(Shift)** to enter the standby or hibernation mode, after resuming operation, you must press the same key. For example, if you hold down on **(Shift)** while sliding the power switch, upon resuming, if you do not press **(Shift)** again, only capital letters will result from typing.
- Slide the power switch and hold it for more than four seconds to power off the computer only when the computer locks up. Data not previously saved will be lost.
- In the standby mode, power is consumed. If a PC Card is inserted, more of that power is consumed. When all power has been consumed, all data saved at standby is lost since it is retained in memory. We therefore recommend plugging in the AC adaptor when using the standby function.
- If the standby or hibernation function is used repeatedly, the computer may not work properly. To stabilize computer operations, we recommend shutting down Windows on a regular basis (about once a week) without using the standby or hibernation function.
- Do not insert or remove peripherals while your computer is in the standby or hibernation mode; abnormal operation may result.

To prevent unauthorized access of your computer, the various security measures are provided below.

Situation	Function to use	Reference
You do not want your computer to be used without permission	Supervisor Password User Password	☞ below
	SD Memory Card Security Function	☞ page 24
You do not want the data on the hard disk to be read, or data to be written to the hard disk, in cases including theft.	Hard Disk Lock	☞ page 13

NOTE

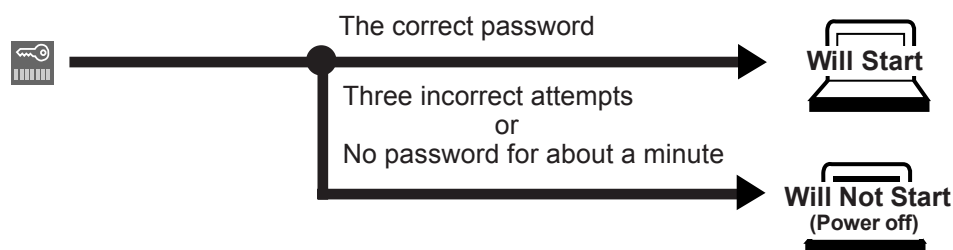
Windows has a security function that differs from the security function of the Setup Utility. For detailed information, refer to the Windows help.

When you do not want your computer to be used without permission

You should set your “Supervisor Password” and “User Password” (The User Password can only be set when the Supervisor Password has been set). Without the password, access to your computer is impossible.

● Starting up when the password is set

(When [Password on boot] of the [Security] menu is set to [Enable].)
Enter your password* and press **(Enter)**.



* Supervisor Password or User Password set in the Setup Utility (not the Windows password).

● If entering the Setup Utility with Supervisor Password

You can register all items of the Setup Utility (☞ page 36).

● If entering the Setup Utility with User Password

- You can not register [Advanced] menu.
- The User Password can be changed only when [User Password Protection] has been set to [No Protection]. The User Password cannot be deleted.
- **(F9)** does not work.

NOTE

When [Password on boot] in the Setup Utility is set to [Disable], the password is not necessary when the computer is started up, but the password becomes necessary when the Setup Utility is started up. This alternative makes it possible to prevent the contents of the Setup Utility from being changed.

Setting the Supervisor Password (enabling, changing, disabling)

- 1 Run the Setup Utility (👉 page 36)
- 2 Using either **→** or **←**, select [Security]
- 3 Using either **↑** or **↓**, select [Set Supervisor Password] and press **Enter**
- 4 <Only when the Supervisor Password has been set>
Enter your password at the [Enter Current Password] and press **Enter**
- 5 Enter your password at the [Enter New Password] and press **Enter**
 - **To disable the Supervisor Password**
Press only **Enter**
- 6 Re-enter your password at the [Confirm New Password] and press **Enter**
 - **To disable the Supervisor Password**
Press only **Enter**
- 7 At the [Setup Notice], press **Enter**
- 8 Press **F10** and select [Yes], then press **Enter**

NOTE

- Your password will not be displayed on the screen.
- Limit your password to seven characters. Note that there is no distinction between upper and lower case letters.
- Only the alphabet keys or number keys can be used. Note that the space bar and function keys cannot be used.

CAUTION

- Do not input your password while holding down on **Shift** or **Ctrl**.
- Use only the upper horizontal row of numeric keys to input your password.
- Do not forget your password. If your Supervisor Password is forgotten you will be unable to use your computer. Contact Panasonic Technical Support.
- When running the Setup Utility, do not leave your computer even for a short time, as the possibility exists for the password to be set/changed by another person.

Setting the User Password (enabling, changing, disabling)

1 Run the Setup Utility (☞ page 36)

NOTE

When the Supervisor Password has not been set, the User Password can not be set.

Set the Supervisor Password if you have not done so. (☞ page 11)

2 Using either or , select [Security]

3 Using either or , select [Set User Password] and press

4 <Only when the User Password has been set> Enter your password at the [Enter Current Password] and press

5 Enter your password at the [Enter New Password] and press

<When the Setup Utility is started up with Supervisor Password>

● To disable the User Password

Press only 

NOTE

- Your password will not be displayed on the screen.
- Limit your password to seven characters. Note that there is no distinction between upper and lower case letters.
- Only the alphabet keys or number keys can be used. Note that the space bar and function keys cannot be used.

6 Re-enter your password at the [Confirm New Password] and press

<When the Setup Utility is started up with Supervisor Password>

● To disable the User Password

Press only 

7 At the [Setup Notice], press

8 Press and select [Yes], then press

CAUTION

- Do not input your password while holding down on  or .
- Use only the upper horizontal row of numeric keys to input your password.
- Do not forget your password. If a password is forgotten, you will be unable to use your computer. Contact Panasonic Technical Support.
- When running the Setup Utility, do not leave your computer even for a short time.

NOTE

When you do not want the User Password enabled or changed without permission:

1 Run the Setup Utility and enter the Supervisor Password.

2 Using  and , select [User Password Protection] and press 

3 Using  and , select [Protected] and press 

When you do not want the data on the hard disk to be read/written

When the Hard Disk Lock is set to [Enable], it is impossible to read/write data from/to the hard disk when the hard disk is inserted in a different computer, since a password is also set for the hard disk. When the hard disk is returned to the original computer, you can read and write data as before. In this case, however, make the settings in the Setup Utility exactly the same as they were before the hard disk was removed. It is possible to set the Hard Disk Lock even if [Password on boot] is set to [Disable], but we recommend that [Password on boot] be set to [Enable] for security reasons. (Note that this Hard Disk Lock does not guarantee complete protection of data.)

NOTE

- In the default setting, [Hard Disk Lock] is set to [Disable].
- You cannot set the [Hard Disk Lock] without setting the Supervisor Password. Set the Supervisor Password if you have not done so. (👉 page 11)
- The hard disk protection function only works with internal hard disk. This function does not work with external hard disk.

Procedure

- 1** Run the Setup Utility (👉 page 36)
- 2** Using either  or , select [Security]
- 3** Using either  or , select [Hard Disk Lock] and press 
- 4** ● **To enable the Hard Disk Lock**
Select [Enable] and press 
At the [Caution], press .

● **To disable the Hard Disk Lock**
Select [Disable] and press 
- 5** Press  and select [Yes], then press 

CAUTION

To change your hard disk:

- To change your hard disk drive, contact Panasonic Technical Support.
- Before changing the hard disk, be sure to set the [Hard Disk Lock] to [Disable].

Conserving Power

One of the main features of notebook-type computers is that you have the power of computing away from your home or office. In the following, information is provided on how to maximize use of the battery pack which is necessary for such computing.

● Four Important Points

POINT 1 Be sure to charge your battery before and after use.

POINT 2 To get the maximum use of your battery, set the power management mode.

POINT 3 Check to see that you have your AC adaptor with you before leaving your home or office.
Purchasing a spare battery (CF-VZSU24) is highly recommended.

POINT 4 Always watch your battery level!

Things to Remember

● Leave your computer off when it is not in use

(☞ "Starting Up/Shutting Down")

● Adjust the brightness (darker) with **[Fn] + [F1]**

By holding down on the keys (will be displayed), the degree of brightness will be lowered, thereby lowering the power consumption.

● Before stepping away from your computer, press **[Fn] + [F7]** or **[Fn] + [F10]** to put your computer in the standby mode or hibernation mode (☞ page 7)

● Windows 2000

In [Control Panel] - [Power Options], make settings in detail

By making settings in detail for the timeout, alarm, etc., it is possible to control the consumption of power.

Windows XP

In [Control Panel] - [Performance and Maintenance] - [Power Options], make settings in detail

By making settings in detail for the timeout, alarm, etc., it is possible to control the consumption of power.

By selecting [Max Battery] in [Power Schemes], the battery's operating time can be extended even further.

● Windows 2000

Set [ReduceOn] to [On] in [Control Panel] - [Settings] - [Display] - [Settings] - [Advanced]

Windows XP

Set [ReduceOn] to [On] in [Control Panel] - [Appearance and Themes] - [Display] - [Settings] - [Advanced]

You can control power consumption by changing the display performance separately for "AC adaptor connected" and "AC adaptor disconnected (i.e., running on batteries)." (In the default setting, [ReduceOn] is set to [On].)

If image processing, etc., seems slow when running on batteries only, set [ReduceOn] to [Off].

Windows 2000

● Setting the Intel® SpeedStep™ technology (☞ page 15)

You can control power consumption by setting CPU performance separately for "AC adaptor connected" and "AC adaptor disconnected (i.e., running on batteries)."

CAUTION

When installed in a network environment (except when the Wake up from LAN function is in use).

Do not use the standby or hibernation mode.

After resuming operation from the standby or hibernation mode, the network connection may be severed or the computer will not work properly.

Setting the Intel(R) SpeedStep (TM) technology Windows 2000

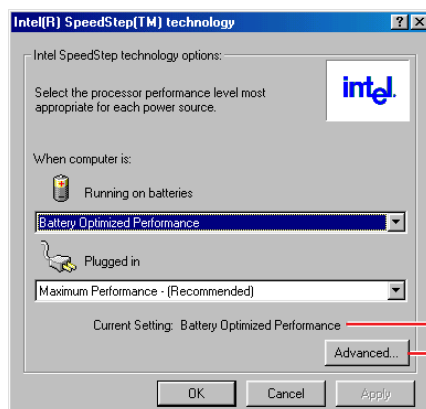
You can control the power consumption by setting the CPU performance separately for “Running on batteries” and “Plugged in”. For performance settings, select either [Maximum Performance], [Automatic], [Battery Optimized Performance] or [Maximum Battery].

Start-up methods

Select  on the taskbar

NOTE

- The icon differs depending on the current setting.
 -  Maximum Performance (The CPU performance is automatically maximized at all times.)
 -  Automatic (The CPU performance is automatically maximized only when necessary.)
 -  Battery Optimized Performance
 -  Maximum Battery (Maximum battery life)
- You can also start using [Start] - [Settings] - [Control Panel] - [Power Options] - [Intel(R) SpeedStep(TM) technology].
- Be sure to log on with the administrator or power user authority when changing the Intel SpeedStep technology setting.
- When set to [Automatic], some noise may be generated when audio files are played. In this case, select settings for either [Maximum Performance] or [Battery Optimized Performance].

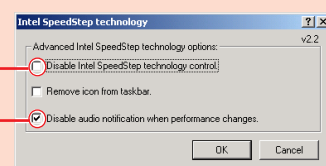


Displays settings currently in effect.

Display detailed settings (⌘ screen in the “CAUTION” shown below)

CAUTION

- Do not add the check mark for [Disable Intel SpeedStep technology control].
- Do not delete the check mark for [Disable audio notification when performance changes].



Battery Status

Use the Battery Indicator to Check the Battery Status

Battery Indicator	Battery Status
Orange*	Charging
Green*	Fully-charged
Red	Battery charge is low (the charge is less than approx. 9% capacity)
Blinking red*	Battery pack or charger may not be working properly. Quickly remove the battery pack and disconnect the AC adaptor, then connect them again. If the problem persists, contact Panasonic Technical Support.
Blinking orange*	Unable to recharge due to violation of temperature limits. (The ambient temperature is outside the allowable range. Once the allowable range requirement is satisfied, charging begins automatically.)
Not lit	Battery pack is not connected or charging not being performed.

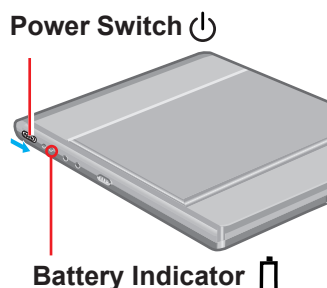
* When the AC adaptor is connected.

NOTE

This computer prevents overcharging of the battery by recharging only when the remaining power is less than approx. 95% of capacity after the battery is fully charged.

● Check the remaining battery capacity with the power off or with the computer in standby/hibernation mode

You can view the battery indicator light to check the remaining battery capacity when the AC adaptor is not connected and you slide the power switch with the display closed and the latch locked.



Battery Indicator	Remaining Battery Capacity
Red	0 % - 4 %
Blinking Orange	5 % - 19 %
Orange	20 % - 49 %
Blinking Green	50 % - 94 %
Green	95 % - 100 %

● Press **(Fn) + (F9)** to check the remaining battery power on the screen



NOTE

- The actual remaining battery capacity and the displayed indication may differ.
 - The battery indicator light remains red.
 - The battery remaining displays 99% and the indicator light is orange for a long period of time.
 - Low battery warning appears after a short period of time. This may be caused by the use of standby mode for long periods of time. The battery is discharging while the computer is in standby mode when the AC adaptor is not connected.

To correct this, execute the "Refresh Battery" utility.
([page 18](#))

- When the battery pack is not in the computer,  is displayed.
- There may be a discrepancy with the % value that is displayed on the taskbar of Windows, but this is not a malfunction.

Remaining Battery Level Confirmation by Alarm

The computer can be set to notify of a low battery level, etc. using the following menu. When the battery level goes down to the level specified, the computer sets off an alarm and displays a message indicating the low battery level.

Windows 2000

[Control Panel] - [Power Options] - [Alarms]

Windows XP

[Control Panel] - [Performance and Maintenance] - [Power Options] - [Alarms]

- Set the value for the [Critical battery alarm] to 5% or more. This is necessary for the standby or hibernation function to be completed (assuring data is saved) when the battery level is low.
- When making a setting for [When the alarm goes off, the computer will:] in [Alarms]-[Alarm Action], add a check mark for [Force standby or shutdown even if a program stops responding].
- If the computer shuts down or enters the standby or hibernation mode by the alarm settings, start up the computer or resume operations after connecting the AC adaptor. If the computer starts up or resumes while the AC adaptor is not connected, Windows may not operate properly or alarm operations may stop working.
- When remaining battery capacity falls to 9%, a beep will sound irrespective of the alarm settings.
- When disabling the speakers with the Setup Utility (or pressing **Fn** + **F4**), the sound alarm is also disabled.

When the Remaining Battery Charge Becomes Low

Save your data and power off your computer

Then:

- Plug in the AC adaptor, and fully charge your battery.
- Use a spare battery if you have one.
In the standby mode, do not remove/change the battery pack.
- If you have neither the AC adaptor nor an extra battery, power the computer off.

Accurately Displaying Battery Capacity

The battery pack has a function for measuring, storing and learning about battery capacity. Using this function properly to accurately display remaining battery capacity requires that the battery pack be fully charged (charged to 100%), then fully discharged, and then fully charged again.

This procedure should be performed once after you purchase the computer. As you use the battery pack over a long period of time, the remaining capacity display may become inaccurate due to aging of the battery pack and other factors. The procedure described below should be performed again.

1 Attach the battery pack and connect the AC adaptor

Remove all peripherals (except for the battery pack and AC adaptor).

2 Use the “Refresh Battery” utility to fully discharge the battery pack

1 Run the Setup Utility. (👉 page 36)

2 Select [Refresh Battery] from [Exit] menu, then press **Enter**.

3 At the confirmation message, select [Yes], then press **Enter**.

The battery pack will be completely charged and discharged, the computer will power off automatically, and then charging will commence. It takes approximately 3 hours until the power automatically goes off through the complete discharge of the battery from the fully charged state.

NOTE

If the computer is turned off (electrical power outage, accidental removal of the AC adaptor, etc.), the battery will not be refreshed correctly.

3 Allow the battery pack to charge until the battery indicator turns green

Charging Time: Approximately 3 hours.

Replacing the Battery Pack

When the charge provided by your battery pack is supplied for only a short period of time, even after fully charging according to the instructions, it may be time to replace your battery pack. The battery pack is a consumable item and therefore will require replacement (CF-VZSU24).

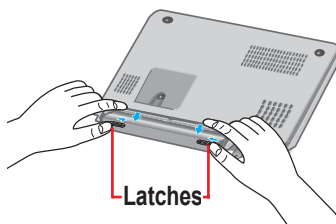
CAUTION

- Do not touch the terminals on the battery pack and the computer. The battery pack may no longer function properly if the contacts are dirty or damaged. Also, the computer may not operate properly.
- The battery pack is not charged when the computer is first purchased. Be sure to charge it before using it for the first time. When the AC adaptor is connected to the computer, charging begins automatically.
- Use only the specified battery pack (CF-VZSU24) with your computer.

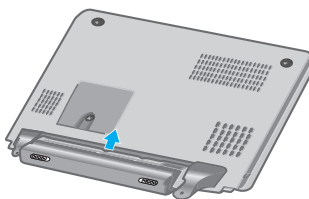
- 1 Power off your computer** (☞📖 “Starting Up/Shutting Down”) Do not shut down using the standby function.

CAUTION

In the standby mode, do not remove/change the battery pack. Removing the pack in the standby mode will erase your data and may damage the computer.



- 2 Turn your computer over and remove the battery pack** Remove the battery pack while sliding the latches inward.



- 3 Insert the battery pack**

Make sure the battery pack is facing the correct direction, then slide it in the direction of the arrow, and then check to ensure that the battery pack is held firmly by the latches on the left and right sides, which indicates that it is securely inserted.

CAUTION

Be sure the battery pack is properly connected to the connector.

SD-MovieStage makes it possible to record the multimedia contents stored on your hard disk drive or various other media onto an SD memory card.

Run the SD-MovieStage

CAUTION

Be sure to log on with the administrator authority when running the SD-MovieStage.

1

Setup the SD-MovieStage

(👉📖 "First-time Operation")

2

Windows 2000

Select [Start] - [Programs] - [Panasonic] - [SD-MovieStage] - [SD-MovieStage]

Windows XP

Select [start] - [All Programs] - [Panasonic] - [SD-MovieStage] - [SD-MovieStage]

NOTE

- The screensaver may not work while SD-MovieStage is running.
- For more detailed information, refer to the operation of the SD-MovieStage.

Windows 2000 : [Start] - [Programs] - [Panasonic] - [SD-MovieStage] - [manual]

Windows XP : [start] - [All Programs] - [Panasonic] - [SD-MovieStage] - [manual]



Your computer has one PC Card slot. This slot conforms to the PC Card Standard; therefore, communications and SCSI devices may be utilized. The slot allows you to use one Type I or Type II card.

CAUTION

- Check the PC Cards' specifications. Be sure the total operating current does not exceed the specified limit. Damage may result otherwise.
Allowable Current: 3.3 V: 400 mA, 5 V: 400 mA
- ZV card, SRAM card, FLASH ROM card (except for an ATA interface) and card requiring 12V are not supported.
- With the repeated insertion/removal of a PC Card, the computer may no longer recognize the PC Card (depending on the type of card). In such cases, restart the computer.
- If the computer freezes after resuming from the standby or hibernation mode, try removing and then reinserting the PC Card. If this does not correct the problem, reboot the computer.

Inserting/Removing the PC Card

● Inserting a PC Card

Simply slide the PC Card in until it snaps into place. Refer to the operation manual of each card on how to insert the card (insertion is typically label-side up).

CAUTION

- When using a PC Card to connect a peripheral device (SCSI, IEEE 1394, etc.):
 - 1 Connect the peripheral device to the card.
 - 2 Turn the device ON.
 - 3 Insert the card.
- When inserting a card, do not force the card in if difficulty is encountered. You may damage the slot, making it impossible to remove the card.

● Removing a PC Card

CAUTION

- Do not remove a PC Card while your computer is in the standby or hibernation mode.
- Note that shutdown may not end properly depending on the status of a PC Card or a device connected to the PC Card, such as when a SCSI card is used to connect a hard disk. In such cases, turn off the power through the [Start]* menu, then remove the card.

* **Windows XP** : [start]

① **Windows 2000**

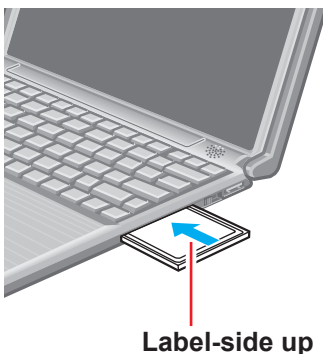
Double-click  on the taskbar, select the PC Card, then select [Stop]. Follow the on-screen instructions.
(When the PC Card has been removed after the computer is turned off, this step is not necessary.)

Windows XP

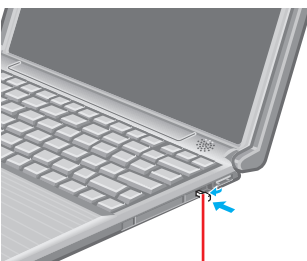
Double-click  on the taskbar, select the PC Card, then select [Stop]. Follow the on-screen instructions.
(When the PC Card has been removed after the computer is turned off, this step is not necessary.)

② Raise the bent part of the eject button.

③ Press the button and slide the PC Card out.



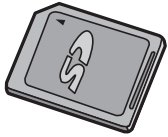
Label-side up



Button

How to Use the SD Memory Card/MultiMedia Card

SD Memory Card

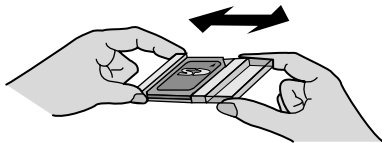


The SD memory card is a small, lightweight memory card developed using advanced copyright protection technology which is compatible with content on-demand services. The SD memory card may be used in ways such as the following.

- Write music data (checkout) to the card and listen to the music.
- Use to exchange data with devices equipped with an SD memory card slot.
When an SD memory card is formatted on a computer, other peripheral devices may not be able to use the card. For further details, refer to the operation manuals provided with your peripheral devices.
- Use as a memory card. (The SD memory card can be used as a drive for storing files, etc.)
- You can insert an SD memory card instead of entering a password to start your computer or log on to Windows. (👉 page 24)

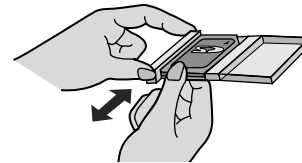
● Removing and storing the SD memory card

<Opening and closing the case>



To ensure that the card performs properly, always use both hands to open and close the case, making sure that the sides (four locations) remain horizontal.

<Removing and storing the SD memory card>



When removing or inserting the card, always slide it along the tray. When storing the card, make sure it is properly inserted in the tray before closing the case.

● Important handling and storage information

- Always store the SD memory card in its case after removing it from a computer.
- Do not take the SD memory card apart or try to modify it.
- Do not hit, bend, or drop the card, or allow it to get wet.
- Do not touch the metal terminals with your hands or with metal.
- Do not remove the labels on the card.
- Do not attach other labels or seals to the card.
- Do not leave the card in locations that can become very hot, such as inside a car that can become hot or in direct sunlight.
- Do not leave the card in dusty locations or locations that are very humid.
- Do not leave the card in locations subject to corrosive gas, etc.

● When resuming from standby or hibernation mode

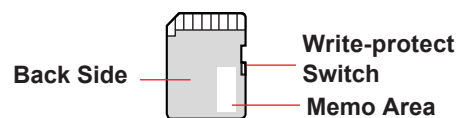
After resuming from standby or hibernation mode, do not access the SD memory card for about 30 seconds.

● Formats for SD memory cards Windows 2000

This computer does not support formats for NTFS file systems. Even if you select the NTFS file format, the SD memory card will not be formatted correctly.

● Protecting important data

- Set the write-protect switch to the LOCK position. Unlock the switch when you want to record (checkout) or edit data.
- Use an oil-base felt-tip pen to write in the memo area on the card. Do not use a pencil or ball-point pen. Doing so can damage the card body or destroy data stored in the card.
- Do not remove the card or turn off the device or peripheral device containing it while data is being read from or written to the card. Also do not remove the dry cells from devices that use dry cells as a power supply. Doing so can destroy data stored in the card. (Note that Panasonic assumes absolutely no liability for any loss of data recorded by the user, or any other damages, direct or indirect.)
- We recommend backing up important data to another storage medium.



● Data transfer rate

The transfer rate using the SD memory card slot on this computer is 2MB per second. The transfer rate is 2MB per second even if you use an SD memory card that supports high-speed transfer rates.

MultiMedia Card (MMC)

The MultiMedia Card can be used in ways such as the following.

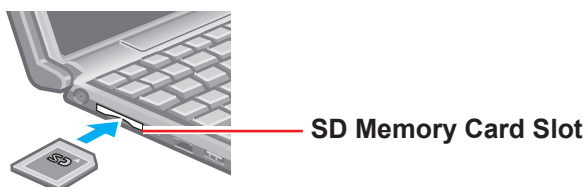
- Use to exchange data with devices equipped with a MultiMedia Card slot.
- Use as a memory card. (The MultiMedia Card can be used as a drive for storing files, etc.)

This computer may not support some cards.

Inserting and Removing the SD Memory Card/MultiMedia Card

● Inserting the card

Insert the card firmly with the label side facing up and with the cut corner in front.



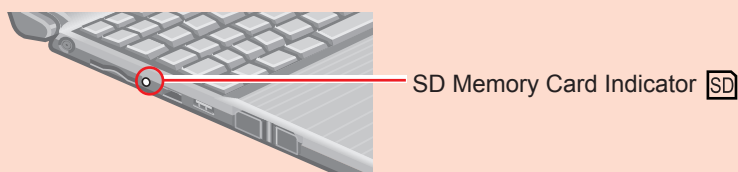
● Removing the card

When you press the card, it will come out of the slot a little bit. Now pull it all the way out.



CAUTION

- Make sure you insert the card in the proper direction. If the card is inserted in the wrong direction, the card or slot may be damaged.
- When removing the card, always press it and allow it to come out a little bit (unlocking the card) before you remove it. If you try to force the card out of the slot while it is locked in place, the card or slot may be damaged.
- The computer may continue to access the card for some length of time after operations such as writing to the card. Do not remove the card until the SD memory card indicator  turns off completely. If you try to remove the card before the operation is completed, important data may be damaged, or it may not be possible to properly access the card the next time it is inserted.



- Even when there is no SD memory card or MultiMedia Card inserted, the drive name will be displayed as Removable Disk in Explorer, etc.

SD Memory Card Security Function

When you initialize an SD memory card, you can provide the card a security function. This function can be used for purposes such as the following.

- Entering a supervisor password in order to start your computer
- Entering a password in order to log on to Windows
- Entering a password when you want to use the computer while the screensaver is active

In addition, you can set the security function on a single SD memory card for multiple computers. Note, however, that this can only be done if all of the computers use the same password.

This security function only works in the SD memory card slot. It does not work in devices such as an SD card reader connected through a USB connection.

Initialization (SD Card Setup)

An SD memory card must be initialized in order to use the security function. Use the following procedure to initialize an SD memory card.

1 Turn on your computer

2 Insert the SD memory card in the SD memory card slot

Windows XP

When the [Removable disk] appears, select [Take no action], then select [OK].

3 Start the SD card setup program

Windows 2000

Select [Start] - [Programs] - [Panasonic] - [SD Card setup].

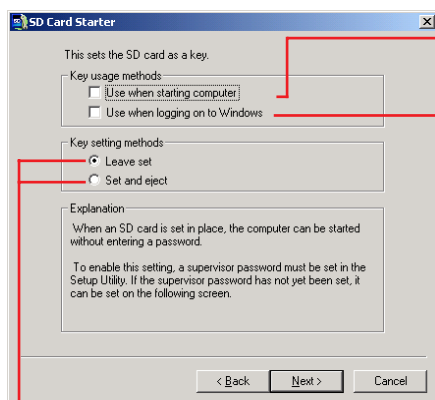
Windows XP

Select [start] - [All programs] - [Panasonic] - [SD Card Setup].

NOTE

If an SD memory card has not been inserted, the following message appears: "Set the SD card in place." Insert an SD memory card and select [Retry].

4 Select [Next], then select the functions you want to use and the SD memory card setting method



Use when starting computer:

Add the check mark if you want to use the SD memory card instead of a password entry in order to start the computer. As many as two SD memory cards can be registered for a single computer.

Use when logging on to Windows:

Add the check mark if you want to use the SD memory card instead of a password entry on the Windows logon screen.*1

*1 Windows XP

If the check mark is added, the Welcome screen will no longer appear and the user switching function will be disabled.

- Leave set*2 : Add the check mark if you want to leave the SD memory card **put in place** instead of entering a password. The card may be removed after the computer is started or after you log on to Windows.
- Set and eject*2 : Add the check mark if you want to **set and eject** the SD memory card instead of entering a password.

- *2 • The setting method is set separately for each computer. Different SD memory cards may not use different setting methods on the same computer.
- To change only the setting for [Use when starting computer], change the setting in the [Security] menu of the Setup Utility.

- 5 After completing your selections, select [Next]
- 6 Select [Restart the computer after entering settings], then select [Finish]
- 7 <This is done only if you select [Use when logging on to Windows] in step 4 >
Set the logon user name and password registered in Windows
 - ① Enter the user name, then press **Tab**
 - ② Enter the password, then press **Tab**
 - ③ Reenter the password entered in step ② , then select [OK]
 - ④ Select [Yes] on the confirmation screen
- 8 <This is done only if you select [Use when starting computer] in step 4 >
Enter the Supervisor Password
 - ① Enter the Supervisor Password, then press **Tab**
<This is done only if the Supervisor Password has not been set in the Setup Utility.>
 - ② Reenter the Supervisor Password entered in step ①
 - ③ Select [OK]
 - ④ Select [Yes] on the confirmation screen

CAUTION

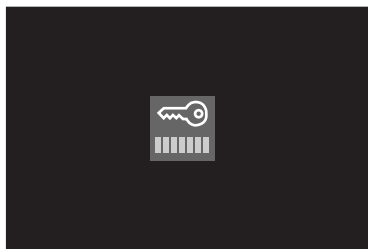
An SD memory card with the above settings can be used as an ordinary memory card in other devices as well. When using the SD memory card in another device, do not delete the [Private] folder. Doing so will cancel the [Use when logging on to Windows].

Using a SD Memory Card with the Security Function

An SD memory card that has been initialized (SD Card Setup) can be used as described below.

● If the card is set for [Use when starting computer]

When the following screen appears...



<If [Leave set] was selected in step 4 for “Initialization (SD Card Setup)”>
Insert the SD memory card.

<If [Set and eject] was selected in step 4 for “Initialization (SD Card Setup)”>
Insert the SD memory card, then eject it.

NOTE

- You can also start your computer by entering the Supervisor Password or User Password.
- If [Leave set] was selected in step 4 and an SD memory card is already inserted, the above password input screen does not appear.

● If the card is set for [Use when logging on to Windows]

If you are prompted to enter your password during Windows logon...

<If [Leave set] was selected in step 4 for “Initialization (SD Card Setup)”>

Insert the SD memory card.

(If the card has already been inserted, reinsert it.)

<If [Set and eject] was selected in step 4 for “Initialization (SD Card Setup)”>

Insert the SD memory card, then eject it.

If you are prompted to enter your password when you try to use the computer in standby or hibernation mode ...

<If [Leave set] was selected in step 4 for “Initialization (SD Card Setup)”>

Insert the SD memory card.

(If the card has already been inserted, reinsert it.)

<If [Set and eject] was selected in step 4 for “Initialization (SD Card Setup)”>

Insert the SD memory card, then eject it.

If you are prompted to enter your password when you try to use the computer while the screensaver is active...

<If [Leave set] was selected in step 4 for “Initialization (SD Card Setup)”>

Insert the SD memory card.

(If the card has already been inserted, do not reinsert it.)

<If [Set and eject] was selected in step 4 for “Initialization (SD Card Setup)”>

Insert the SD memory card, then eject it.

NOTE

- You can also enter your password to log on to Windows or resume from standby or hibernation mode when the computer is in standby or hibernation mode, or when the screensaver is active.
- If you select [Leave set] in step 4 for “Initialization (SD Card Setup)” and a registered SD memory card is already inserted, the Windows logon screen does not appear when the computer is started.

CAUTION

● If the card is set for [Use when logging on to Windows]

When you are logging on to Windows or trying to resume computer while the screensaver is active, if the SD memory card indicator is blinking, enter the password through the keyboard without removing the SD memory card.

A software application, etc. may be accessing the SD memory card.

We recommend removing the SD memory card in the following cases:

- After logging off
 - Before the computer enters either the standby or hibernation mode
 - If there is a possibility that the screensaver will be activated
 - If you use an SD memory card with incorrect settings
 - When the computer is being started, an icon appears for approximately three seconds, after which the computer will turn off.
 - You cannot log on to Windows.
 - You cannot resume computer from standby or hibernation mode.
 - You cannot disable the screensaver.
- Reinsert an SD memory card with correct settings, or enter the appropriate password.
- If you select [Set and eject], insert the SD memory card, then eject it after you hear a beep indicating card recognition.
 - If the computer does not respond properly when you insert the SD memory card, remove the card and wait a few seconds, then reinsert it.
 - Do not remove or insert the SD memory card until Windows has completed loading.

Setting Up an SD Card after the SD Card Setup Program Has Been Used

After you run the SD Card Setup program once, the setup screen that appears the next time you run it will be different. This section describes how to set up an SD card in such cases.

1 Turn on the computer

2 Insert the SD memory card in the SD memory card slot

Windows XP

When the [Removable disk] appears, select [Take no action], then select [OK]

3 Start the SD Card Setup program

Windows 2000

Select [Start] - [Programs] - [Panasonic] - [SD card setup]

Windows XP

Select [start] - [All programs] - [Panasonic] - [SD card setup]

4 Change the settings as necessary

● Setting for this computer

Use the SD card when starting the computer:

Add the check mark if you want to use the SD memory card instead of a password entry in order to start the computer. Removing the check mark erases the information pertaining to all SD memory cards currently registered on the computer. You will no longer be able to start the computer with any previously registered SD memory card. Remove the check mark if there is a possibility of unauthorized card use by another party (e.g., if you lose an SD memory card). Note that once you remove the check mark, if you want to use the SD memory card again, you will need to reenter the [Use when starting the computer] under [Setting for this SD card]. This setting can also be done on the [Security] menu of the Setup Utility.

<If you add a new check mark in the box>

The screen for entering the Supervisor Password appears. If a Supervisor Password has been set in the Setup Utility, enter that password. If a Supervisor Password has not been set in the Setup Utility, enter the same password twice on this screen.

<If you remove the check mark>

Removing the check mark from [Use the SD card when starting the computer] does not disable the Supervisor Password. (The password input screen appears when the computer is started.) To prevent the password input screen from appearing, run the Setup Utility and disable the Supervisor Password.

(☞ page 39)

Use the SD card when logging on to Windows:

Add the check mark if you want to use the SD memory card instead of a password entry in order to log on to Windows. If you remove the check mark, you will not be able to log on to Windows by inserting an SD memory card with a set password.

Key setting methods:

Perform step 4 under [Initialization (SD Card Setup)]. (☞ page 24)

To change only the setting for [Use the SD card when starting the computer], change the setting in the [Security] menu of the Setup Utility. (☞ page 39) If you change the setting for [SD Card settings], the setting for Setup Utility will also be changed.



● Setting for this SD card

Use when starting the computer:

Add the check mark if you want to use the SD memory card instead of a password entry in order to start the computer. (When this box is selected, a check mark is also entered automatically in [Use the SD card when starting the computer].)

<If you add a new check mark in the box>

The screen for entering the Supervisor Password appears. If a Supervisor Password has been set in the Setup Utility, enter that password. If a Supervisor Password has not been set in the Setup Utility, enter the same password twice on this screen.

Use when logging on to Windows:

Add the check mark if you want to use the SD memory card instead of a password entry in order to log on to Windows.

<If you add a new check mark in the box>

The screen for entering the user name and password appears. Enter the user name and password. You must enter the same password twice.

<If you remove the check mark>

The screen for entering the password appears. When you enter the password and select [OK], the following confirmation message appears: [The user name and password registered in the SD card will be erased. Are you sure you want to proceed?]

Select [OK] to erase the user name and password from the SD memory card.

Changing the user name and password:

You can change the Windows logon user name and password which are set in the inserted SD memory card. The set user name appears, so enter the password. Next, enter the new user name and password.

NOTE

- If no SD memory card is inserted, all of the fields under [Setting for this SD card] are grayed out and none of them can be selected.
- [User name and password] is grayed out if [Use when logging on to Windows] is not selected.

5 After completing all the settings, select [OK]

6 <Perform this step only when a new Supervisor Password is set>
Select [OK], then restart the computer

Use a RAM module meeting the RAM module specifications below. If a module is used that does not meet the specifications, there are cases in which data may become unusable or the computer may not operate properly.

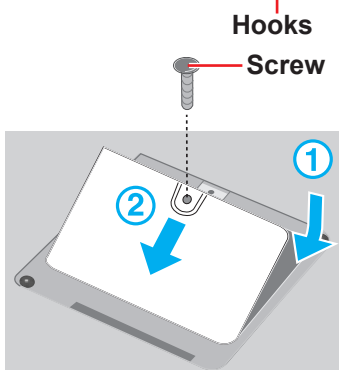
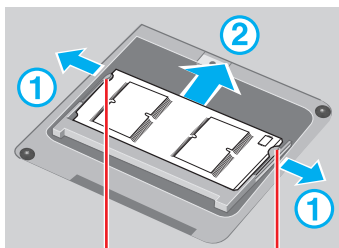
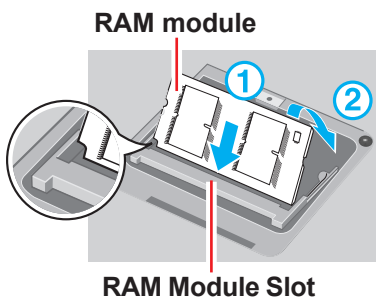
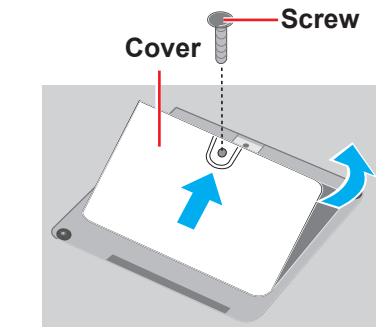
RAM module specifications
144 pins, μ DIMM, PC100 Compliant

Only a RAM module designed for PC100 can be added.

CAUTION

RAM modules are extremely sensitive to static electricity. There are cases where static electricity generated by the human body has adversely affected such modules. In addition, it is easy to damage the RAM modules or internal components of the computer. Therefore, when inserting or removing a RAM module, handle the module with extreme care.

Inserting/Removing RAM Module



1 Power off your computer (☞☞ “Starting Up/Shutting Down”)

Do not shut down using the standby or hibernation function. Disconnect the AC adaptor and remove the battery pack.

2 Remove the memory cover after removing the screw holding it in place

Turn the computer over and use a screwdriver to remove the screw.

CAUTION

Do not touch the terminals or internal components, insert objects other than the module, or allow foreign particles to enter. Doing so has been known to cause damage, fire or electric shock.

3 ● Inserting the RAM module

① Insert the RAM module, ensuring that the notch is on the correct side.

② Snap the module into place by pushing down on it.

● Removing the RAM module

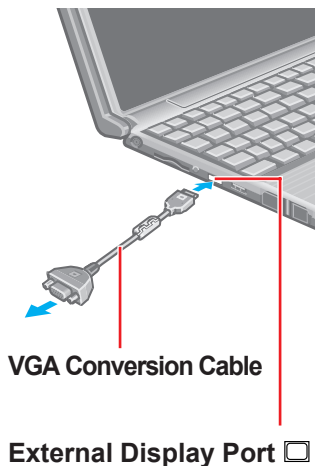
① Open the left and right hooks.

② Gently remove the RAM module from the slot.

4 Put the cover back into place, then fasten the screw

NOTE

Whether the RAM module is properly recognized or not can be confirmed in [Main] of the Setup Utility. (☞ page 37) If the RAM module is not recognized, power off the computer and insert it again.



Attach with the ☐ mark facing upward.
To remove: Remove while pressing on the latch on the bottom.

Use the included VGA conversion cable to connect an external display.

- 1 Power off your computer** (👉📖 “Starting Up/Shutting Down”)
Do not shut down using the standby or hibernation function.
- 2 Attach the core** (👉📖 “First-time Operation”)
- 3 Connect the VGA conversion cable to the external display port on your computer**
- 4 Connect the external display to the VGA conversion cable**
- 5 Turn on the external display, then turn on your computer**

The following procedure can be used to switch the display destination after Windows starts.

- **(Fn) + (F3)**

- **Windows 2000**

Select the display destination in [Start] - [Settings] - [Control Panel] - [Display] - [Settings] - [Advanced] - [Lynx3DM+].

- **Windows XP**

Select the display destination in [start] - [Control Panel] - [Appearance and Themes] - [Display] - [Settings] - [Advanced] - [Lynx3DM+].

NOTE

- The display destination when Windows is not running (e.g., Setup Utility) is set under [Display] on the [Main] menu of the Setup Utility. (👉 page 37)
- The display destination after resuming from hibernation status or when the computer restarts may not be the same as before entering hibernation status or before restarting the computer.
- When switching the display destination after Windows starts, do not press any keys or slide the power switch until the display is completely switched.

6 Select your external display

Windows 2000

Set your external display for [Monitor] in [Start] - [Settings] - [Control Panel] - [Display] - [Settings] - [Advanced].

When a monitor that does not conform to the Plug & Play standards is connected, select [Monitor] - [Properties] - [Driver] - [Update Driver] and make the monitor settings.

Windows XP

Set your external display for [Monitor] in [start] - [Control Panel] - [Appearance and Themes] - [Display] - [Settings] - [Advanced].

When a monitor that does not conform to the Plug & Play standards is connected, select [Monitor] - [Properties] - [Driver] - [Update Driver] and make the monitor settings.

NOTE

For more detailed information, refer to the operation manual of the external display.



USB Port

Attach with the  mark facing upward.
(There is also a USB port on the left side of the computer.)

Inserting USB devices

Connect the USB device to your computer

For information on how to connect to the USB device or install the driver, refer to the operation manual of the USB device

NOTE

- USB devices may be attached or removed without turning off the computer's power.
- When a USB device is connected, there are cases the standby or hibernation function will not operate in a normal manner due to the USB device. In addition, a USB device may have to be removed temporarily and the computer restarted in cases where the computer is unable to start up properly.

Windows XP

- Noise may occur when using speakers connected through a USB port.

Removing USB devices

CAUTION

- Do not remove a USB device while your computer is in the standby or hibernation mode.
- Save important data and close each application.

1

Windows 2000

Double-click  on the taskbar and select the USB device, then select [Stop]

Follow the on-screen instructions.

(When  is not displayed or when the USB device has been removed after the computer is turned off, this step is not necessary.)

Windows XP

Double-click  on the taskbar and select the USB device, then select [Stop]

Follow the on-screen instructions.

(When  is not displayed or when the USB device has been removed after the computer is turned off, this step is not necessary.)

2

Remove the USB device USB Floppy Disk Drive

Note the following when using a USB floppy disk drive (CF-VFDU03).

- **Do not power off your computer or press the floppy disk drive eject button while the floppy disk drive being accessed.**

Doing so may damage the data on the floppy disk and render the floppy disk useless.

- **Use care when handling floppy disks.**

To protect the data on your floppy disks or to prevent a floppy disk from becoming stuck in your computer, avoid the following:

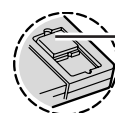
- Sliding the shutter on the floppy disk manually.
- Exposing the disk to a magnetic field.
- Storing the disk in locations prone to high temperatures, low pitched noise, dampness, or dust.
- Applying more than one label on the disk.

- **Confirm the contents of a floppy disk before formatting it.**

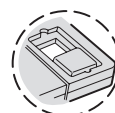
Confirm that no important data is on the floppy disk, because all data on the floppy disk will be erased.

- **Use the write-protect tab.**

This is a must for preserving important data. This prevents your data from being erased or overwritten.



Write Enable



Write Disable

- The USB floppy disk drive cannot be used at the same time as other floppy disk drives.
- Do not directly open application files (e.g., Microsoft Word, Microsoft Excel) which are stored on the floppy disk. First copy the files to the hard disk, then open the copied files from the hard disk.

Connecting to a Telephone Line and Settings

1 Connecting a telephone line to the modem

It is not possible to connect the modem to any of the following lines.

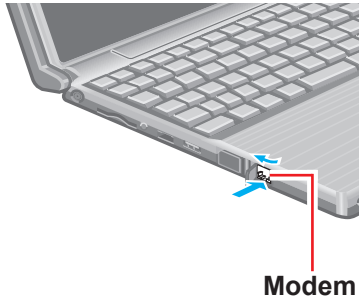
- Internal home phones
- Intercoms

CAUTION

Do not use the PBX internal phone lines inserted in company offices. Doing so may lead to a fire or electric shock.

NOTE

When [Modem] is set to [Disable] in the Setup Utility, the modem will not operate. (In the default setting, [Modem] is set to [Enable].)



2 Windows 2000

Select [Edit] in [Start] - [Settings] - [Control Panel] - [Phone and Modem Options] - [Dialing Rules]

Windows XP

Select [Edit] in [start] - [Control Panel] - [Printers and Other Hardware] - [Phone and Modem Options] - [Dialing Rules]

Input the necessary information (items such as the country, area code, etc.), select [OK], then select [OK].

NOTE

- Do not enter either the standby or hibernation mode during communications.
- Modem sounds such as dial tone and carrier handshaking noise cannot be heard.

Ring Resume Function

With this function, if the telephone that is connected to the modem rings in the standby mode, the power of the computer automatically switches ON.

This function is convenient when using automatic information receiving applications such as a FAX application.

When using this function, it is necessary to run a software application able to maintain the condition to receive telephone calls and to return the computer to the original condition after a call.

To use this function:

1 Windows 2000

Select [Device Manager] in [Start] - [Settings] - [Control Panel] - [System] - [Hardware].

Windows XP

Select [Device Manager] in [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware].

2 Select the modem you are using from [Modems].

3 Select [Power Management], add the check mark for [Allow this device to bring the computer out of standby], then select [OK].

NOTE

- This function does not work when the computer is off or is in hibernation mode.
- When using this function, it is recommended that the AC adaptor be connected to the computer.
- After operations are resumed from standby status, the screen remains dark. The former screen display will be restored when the keyboard or touch pad is touched.
- The computer cannot resume if a telephone is connected to the line of a modem (e.g., a PC Card modem) other than the internal modem.
- Concerning the setting for [System standby]*, roughly consider the communication time and then set [System standby].

There may be cases where the computer enters the standby mode after the time set for [System standby] elapses even during communications, and cuts off the communications. If [Never] is set, the computer will not enter the standby mode during communications, but once the computer resumes, the power of the computer will remain on while the user is absent.

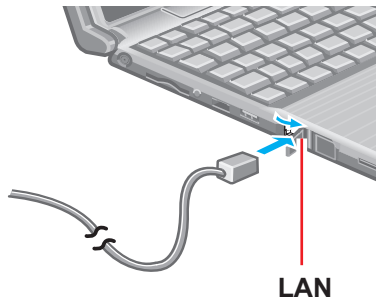
* **Windows 2000** : In [Control Panel] - [Power Options] - [Power Schemes]

Windows XP : In [Control Panel] - [Performance and Maintenance] - [Power Options] - [Power Schemes]

- When the Ring Resume function is being used, some time elapses before a connection is established (equal to the time for the computer to resume). To allow the computer to resume, set the "call" to a larger value than a typical telephone call.

If it is not possible for the sending side to set a long "call", set the "number of rings until answer" (with the software application that is able to maintain the condition to receive telephone calls) to a small value.

Using LAN



Using the computer as a network computer

When using the computer as a network computer, some additional settings may have to be made depending on the usage conditions. We recommend asking your system administrator or the person in charge of the network.

NOTE

- Do not use the standby or hibernation functions during communications (except when the Wake up from LAN function is in use), as this may cause an error in data transmission or reception. The timeout function may engage even during data transmissions, causing the computer to automatically go into standby or hibernation mode. When not using the Wake up from LAN function, we recommend disabling the timeout function using the following menu:

Windows 2000 : [Control Panel] - [Power Options] - [Power Schemes]

Windows XP : [Control Panel] - [Performance and Maintenance] - [Power Options] - [Power Schemes]

- If you are unable to connect to the network (when the indicator of your HUB unit does not light):

1 Windows 2000

Select [Device Manager] in [Start] - [Settings] - [Control Panel] - [System] - [Hardware].

Windows XP

Select [Device Manager] in [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware].

2 Select the network card you are using from [Network adapters].

3 Select [Advanced].

4 Confirm the settings of each item.

Wake up from LAN

This is a function to automatically power the computer on from a network server when the computer is in the standby or hibernation mode. To use this function, it is necessary to have a network environment that accommodates Wake up from LAN.

To use this function:

1 Windows 2000

Select [Device Manager] in [Start] - [Settings] - [Control Panel] - [System] - [Hardware].

Windows XP

Select [Device Manager] in [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware].

2 Select the network card you are using from [Network adapters].

3 Select [Power Management], add the check mark for [Allow this device to bring the computer out of standby] and [Allow the computer to turn off this device to save power], then select [OK].

NOTE

- Be sure to connect the AC adaptor, and enable the supply of power.
- Make settings to allow the use of a LAN.
- The computer will not “wake up” if the LAN cable is disconnected and reconnected.
- When using the Wake up from LAN function, delete the check mark for the following:

Windows 2000

[Prompt for password when computer goes off standby] in [Start] - [Settings] - [Control Panel] - [Power Options] - [Advanced]

Windows XP

[Prompt for password when computer resumes from standby] in [start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Advanced]

- The Wake up from LAN function will not operate under the following conditions:
 - When the computer has been shut down
 - When the power switch is slid over for four seconds or longer to turn off the power (e.g., when the computer hangs)
 - When the AC adaptor and battery pack are removed from the computer or reattached to the computer
- The computer may start up if accessed by another computer on the network.

Windows XP

The following procedure can be used to prevent startup due to unintentional access by a computer.

1 Select [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware] - [Device Manager] - [Network Adapters].

2 Select the network card you are using, and then select [Power Management].

3 Select [Only allow management station to bring the computer out of standby].

Running the Setup Utility

- 1** Turn on or restart the computer
- 2** Press **(F2)** while **[Press F2 to enter SETUP]** is displayed soon after the computer begins the startup procedure
(If you fail to press **(F2)** at this time, restart your computer.)
 - **If [Enter Password] is displayed**
Enter your password.
The Supervisor Password must be entered to change items of the [Advanced] menu or [Security] menu. (When a user password is entered, the [Advanced] menu contents, [Boot] menu contents and some parts of the [Security] menu cannot be changed.)

NOTE

To close the Setup Utility;  [page 41](#).

● Key Operations

- | | |
|------------------|--|
| (F1) | :To display the corresponding “help” file. |
| (Enter) | :To display sub-menu. |
| (Esc) | :To display [Exit] menu. |
| (←) (→) | :To move among the menus. |
| (↑) (↓) | :To move among the items. |
| (F5) (F6) | :To move among the values. |
| (F9) | :To set default settings.
(When starting up the Setup Utility with the User Password, this key is not available.) |
| (F10) | :To save the settings and exit. |

Main Menu

Model No:	xxxx
Serial No:	xxxx
BIOS Version:	Vx.xxLxx
System Time:	[xx:xx:xx]
System Date:	[xx/xx/xxxx]
System Memory:	xxx MB
Hard Disk:	xx GB
NumLock:	[Off]
Touch Pad:	[Enable]
Speaker:	[Enable]
Display:	[External Monitor]
Display Expansion:	[Disable]

Parameters (_ : Default)

NumLock* ¹	On <u>Off</u>
Touch Pad	Disable <u>Enable</u>
Speaker	Disable <u>Enable</u>
Display* ²	<u>External Monitor</u> Internal LCD Simultaneous
Display Expansion* ³	<u>Disable</u> Enable

*¹ Does not operate for Windows.

*² The display destination in cases where Windows is not running is set here. If an external display is not connected, all information will appear on the internal LCD even if [External Monitor] or [Simultaneous] is selected.
After Windows starts, the setting made in the following field is enabled.

Windows 2000

[Start] - [Settings] - [Control Panel] - [Display] - [Settings] - [Advanced] - [Lynx3DM+]

Windows XP

[start] - [Control Panel] - [Appearance and Themes] - [Display] - [Settings] - [Advanced] - [Lynx3DM+]

*³ When [Display Expansion] is changed from [Enable] to [Disable], display expansion for the Windows screen is not automatically disabled (turned off). To disable it, set the following setting to [OFF].

Windows 2000

[Start] - [Settings] - [Control Panel] - [Display] - [Settings] - [Advanced] - [Lynx3DM+] - [Stretch].

Windows XP

[start] - [Control Panel] - [Appearance and Themes] - [Display] - [Settings] - [Advanced] - [Lynx3DM+] - [Stretch].

Advanced Menu

Device Configuration :	[BIOS]
Modem:	[Enable]
LAN:	[Enable]
Boot up from LAN:	[Enable]
Wake up from LAN:	[Disable]
Legacy USB Support:	[Enable]
USB Floppy Boot:	[Enable]

Parameters (_ : Default)

Device Configuration	<u>BIOS</u> OS
Modem	Disable <u>Enable</u>
LAN	Disable <u>Enable</u>
Boot up from LAN* ¹	Disable <u>Enable</u>
Wake up from LAN* ¹ * ²	Disable <u>Enable</u>
Legacy USB Support	Disable <u>Enable</u>
USB Floppy Boot* ³	Disable <u>Enable</u>

*¹ This can be set only when [LAN] is set to [Enable].

These functions work only with the internal LAN. They do not work with a wireless LAN module or LAN card.

*² After Windows starts, the function works irrespective of the [Wake up from LAN] setting. ( [page 35](#))

*³ This can be set only when [Legacy USB Support] is set to [Enable]. This applies only to USB floppy disk drive (optional).

The computer cannot be started (booted) from other floppy disk drives.

Security Menu

Password on boot	[Enable]
▶Set Supervisor Password:	[Enter]
Display Boot Menu	[Enable]
Hard Disk Lock:	[Disable]
User Password Protection:	[No Protection]
▶Set User Password:	[Enter]

NOTE

- When the Setup Utility is started up with the User Password;**
- The User Password can be changed only when [User Password Protection] has been set to [No Protection]. The User Password cannot be deleted.
 - Only [Password on boot] and [Set User Password] will be displayed.

Parameters (_ : Default)

Password on boot	Disable <u>Enable</u>
SD Startup*1	<u>Disable</u> Enable
SD Setting Method*1*2	<u>Leave Set</u> Set and Eject
Clear Registered SD Card*1	To the sub-menu
Set Supervisor Password	To the sub-menu
Display Boot Menu	Disable <u>Enable</u>
Hard Disk Lock*3	<u>Disable</u> Enable
User Password Protection	<u>No Protection</u> Protected
Set User Password*3	To the sub-menu

*1 This is displayed only when an SD memory card has been registered. However, [SD Startup] and [SD Setting Method] cannot be set if [Password on boot] is set to [Disable].

*2 This can be set only if [SD Startup] has been set to [Enable].

*3 Setting impossible when the Supervisor Password is not set.

Power Menu

Power Switch:	[Off]
Fn+F7/Fn+F10 Key:	[Enable]

Parameters (__ : Default)

Power Switch*	<u>S</u> tandby Off
Fn+F7/Fn+F10 Key	Disa <u>b</u> le <u>E</u> nable

* Does not operate for Windows. After Windows starts, power saving is activated according to the following setting.

Windows 2000

[Start] - [Settings] - [Control Panel] - [Power Options]

Windows XP

[start] - [Control Panel] - [Performance and Maintenance] - [Power Options]

Boot Menu

Floppy Disk*¹
Hard Disk
USB CD Drive*¹
LAN

*¹ This is displayed even if a floppy disk drive or CD drive is not connected.

The following drive can be used for startup (recommended).

- Panasonic USB floppy disk drive

The default order is as follows:

[Floppy Disk] → [Hard Disk] → [USB CD Drive] → [LAN].

To move a device up by one in the order, select the device with  and , and then press **F6**.

To move a device down by one in the order, select the device with  and , and then press **F5**.

NOTE

Boot First Menu

The device for starting up the Operating System can also be selected during computer start-up.

After the computer is turned on, the device selection display will appear when **ESC** is pressed while "Press ESC to enter Boot First Menu" is shown.

When the setting of the [Boot] menu is changed, the selection screen display will also change.

The [Boot First Menu] is displayed only when [Display Boot Menu] in [Security] menu is set to [Enable].

Exit Menu

Save Values & Exit
Exit Without Saving Changes
Get Default Values
Load Previous Values
Save Current Values

Refresh Battery

Parameters

Save Values & Exit	Exit the Setup Utility and save your changes to CMOS.
Exit Without Saving Changes	Exit the Setup Utility without saving your changes to CMOS.
Get Default Values* ²	Set the default settings.
Load Previous Values	Load previous values from CMOS for all Setup items.
Save Current Values	Save your changes to CMOS.
Refresh Battery	Refreshing the Battery ( page 18)

*² This item may not be displayed when starting up the Setup Utility with the User Password.

Network

When the power saving function is running, communications software may malfunction. For example, communications may be halted if the standby (hibernation) mode is activated. The computer must be restarted if one of these modes is entered during data communications. Be sure that the power of the display is cut (for energy conservation purposes) or the computer enters standby (hibernation) mode after the communications software is closed.

Windows 2000

When network or communication software is to be used, set [Turn off monitor], [Turn off hard disks], [System standby] and [System hibernates] (in [Start] - [Settings] - [Control Panel] - [Power Options]) to [Never].

Windows XP

When network or communication software is to be used, set [Turn off monitor], [Turn off hard disks], [System standby] and [System hibernates] (in [start] - [Control Panel] - [Performance and Maintenance] - [Power Options]) to [Never].

Special Modes

Windows 2000

Set [DualApp] and [DualView] to [OFF] in [Start] - [Settings] - [Control Panel] - [Display] - [Settings] - [Advanced] - [Lynx3DM+]. (The factory default setting is [OFF].)

These functions do not work properly with this computer.

Windows XP

Set [DualApp] and [DualView] to [OFF] in [start] - [Control Panel] - [Appearance and Themes] - [Display] - [Settings] - [Advanced] - [Lynx3DM+]. (The factory default setting is [OFF].)

These functions do not work properly with this computer.

When Using the Files on the Retail Version of the Windows CD-ROM

The Windows files included in the Retail Version of the Windows CD-ROM for each OS are contained in the following folders:

Windows 2000

c:\winnt\cdimage\bootdisk,	c:\winnt\cdimage\discover,
c:\winnt\cdimage\i386,	c:\winnt\cdimage\setuptxt,
c:\winnt\cdimage\support,	c:\winnt\cdimage\valueadd

Windows XP

c:\windows\docs,	c:\windows\i386,	c:\windows\support,	c:\windows\valueadd
------------------	------------------	---------------------	---------------------

Precautions When Using a CardBus Type LAN Card Windows 2000

Prior to usage, optimize the LAN card settings by following the procedure given below. Failure to do so may result in an error message being displayed when performing a copy operation via the LAN card with a computer on the network.

- 1 Select the network card you are using from [Network adapters] in [Control Panel] - [System] - [Hardware] - [Device Manager]
- 2 Select [Advanced], select [Store And Forward] from [Property], then set [Enable] for [Value] if it is set to [Disable]
(This item may be unavailable for some types of network cards.)

Display Resolution and Colors Windows 2000

After changing the display resolution or number of colors using [Start] - [Settings] - [Control Panel] - [Display] - [Settings], be sure to reboot the computer.

This computer conforms to the specifications of the Desktop Management Interface (DMI). The DMI Viewer can be used when you want to know information on the internal systems this computer supports, starting with the CPU and memory.

Running DMI Viewer

Windows 2000

Select [DMI Viewer] from [Start] - [Programs] - [Panasonic]

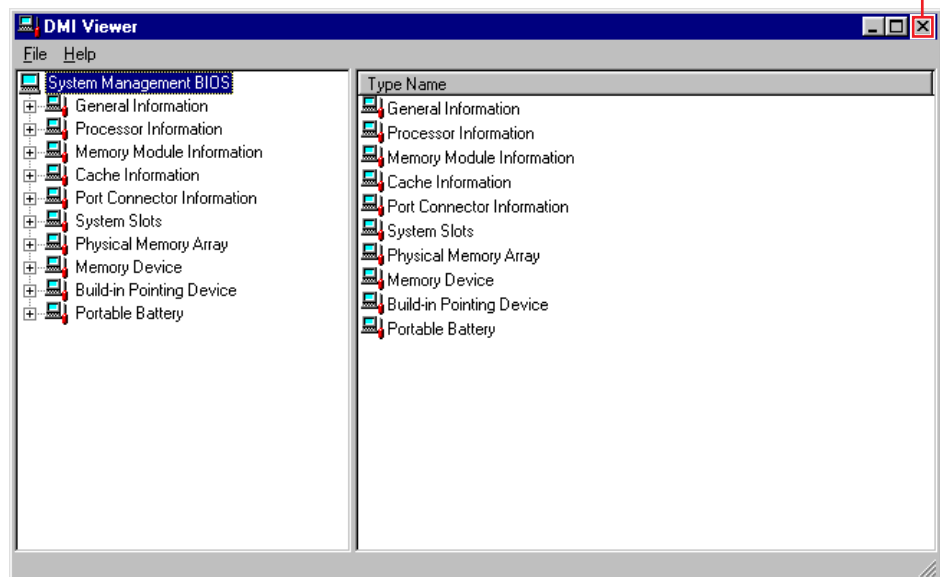
Windows XP

Select [DMI Viewer] from [start] - [All Programs] - [Panasonic]

The screen shown below is displayed.

When you click on an item, detailed information on that item will be displayed.

Click to close the DMI Viewer



Saving Information to a File

Displayed information can be saved to a text file (.txt). Run the DMI Viewer and display the information you wish to save.

1 ● **To save the item that is displayed**
Select [Save Selected Data] from [File] menu.

● **To save all items**
Select [Save All Data] from [File] menu.

2 Input the file name (and select the folder), then select [Save]

The following is a list of the messages that BIOS can display. Most of them occur during POST. Some of them display information about a hardware device, e.g., the amount of memory installed. Others may indicate a problem with a device, such as the way it has been configured. Following the list are explanations of the messages and remedies for reported problems.

If your system displays any of the below error messages other than the ones marked with an asterisk (*), write down the message and contact Panasonic Technical Support. If your system fails after you make changes in the Setup menus, reset the computer, enter Setup and install Setup defaults or correct the error.

0200 Failure Fixed Disk

Fixed disk is not working or not configured properly. Check to see if fixed disk is attached properly. Run Setup. Find out if the fixed-disk type is correctly identified.

0210 Stuck key

Stuck key on keyboard.

0211 Keyboard error

Keyboard not working.

0212 Keyboard Controller Failed

Keyboard controller failed test. May require replacing keyboard controller.

0213 Keyboard locked - Unlock key switch

Unlock the system to proceed.

0230 System RAM Failed at offset : *nnnn*

System RAM failed at offset *nnnn* of the 64k block at which the error was detected.

0231 Shadow RAM Failed at offset : *nnnn*

Shadow RAM failed at offset *nnnn* of the 64k block at which the error was detected.

0232 Extended RAM Failed at offset : *nnnn*

Extended memory not working or not configured properly at offset *nnnn*.

0250 System battery is dead - Replace and run SETUP

The CMOS clock battery indicator shows the battery is dead. Replace the battery and run Setup to reconfigure the system.

***0251 System CMOS checksum bad - Default configuration used**

System CMOS has been corrupted or modified incorrectly, perhaps by an application program that changes data stored in CMOS. The BIOS installed Default SETUP Values. If you do not want these values, enter Setup and enter your own values. If the error persists, check the system battery or contact Panasonic Technical Support.

0260 System timer error

The timer test failed. Requires repair of system board.

0270 Real time clock error

Real-time clock fails BIOS test. May require board repair.

***0280 Previous boot incomplete - Default configuration used**

Previous POST did not complete successfully. POST loads default values and offers to run Setup. If the failure was caused by incorrect values and they are not corrected, the next boot will likely fail. On systems with control of **wait states**, improper Setup settings can also terminate POST and cause this error on the next boot. Run Setup and verify that the wait-state configuration is correct. This error is cleared the next time the system is booted.

0281 Memory Size found by POST differed from EISA CMOS

Memory size found by POST differed from EISA CMOS.

02B0 Diskette drive A error

02B1 Diskette drive B error

Drive A: or B: is present but fails the BIOS POST diskette tests. Check to see that the drive is defined with the proper diskette type in Setup and that the diskette drive is attached correctly.

02B2 Incorrect Drive A type - run SETUP

Type of floppy drive A: not correctly identified in Setup.

02B3 Incorrect Drive B type - run SETUP

Type of floppy drive B: not correctly identified in Setup.

02D0 System cache error - Cache disabled

Contact Panasonic Technical Support.

02F0: CPU ID:

CPU socket number for Multi-Processor error.

02F4: EISA CMOS not writable

ServerBIOS2 test error: Cannot write to EISA CMOS.

02F5: DMA Test Failed

ServerBIOS2 test error: Cannot write to extended DMA (Direct Memory Access) registers.

02F6: Software NMI Failed

ServerBIOS2 test error: Cannot generate software NMI (Non-Maskable Interrupt).

02F7: Fail - Safe Timer NMI Failed

ServerBIOS2 test error: Fail-Safe Timer takes too long.

device address Conflict

Address conflict for specified *device*.

Allocation Error for: device

Run ISA or EISA Configuration Utility to resolve resource conflict for the specified *device*.

Failing Bits : *nnnn*

The hex number *nnnn* is a map of the bits at the RAM address which failed the memory test. Each 1 (one) in the map indicates a failed bit. See error 230,231 or 232 for offset address of the failure in System, Extended or Shadow memory.

Invalid System Configuration Data

Problem with NVRAM (CMOS) data.

I/O device IRQ conflict

I/O device IRQ conflict error.

Operating System not found

Operating system cannot be located on either drive A: or drive C:. Enter Setup and see if fixed disk and drive A: are properly identified.

Parity Check 1 *nnnn*

Parity error found in the system bus. BIOS attempts to locate the address and display it on the screen. If it cannot locate the address, it displays ?????. Parity is a method for checking errors in binary data. A parity error indicates that some data has been corrupted.

Parity Check 2 *nnnn*

Parity error found in the I/O bus. BIOS attempts to locate the address and display it on the screen. If it cannot locate the address, it displays ????.

Press <F1> to resume, <F2> to Setup

Displayed after any recoverable error message. Press <F1> to start the boot process or <F2> to enter a Setup and change the settings. Write down and follow the information shown on the screen.

When a problem occurs, refer to this page. If a problem appears to be related to a software application, read the software related manual. If you still cannot troubleshoot the problem, contact Panasonic Technical Support.

Starting Up

The power indicator or battery indicator is not lit	● Check the cable connection for the AC adaptor. ● Check to see if a fully charged battery is properly inserted. ● Remove the battery pack and disconnect the AC adaptor, then connect them again.
 is displayed	Input your password. If you have forgotten it, contact Panasonic Technical Support.
POST Startup Error(s) is displayed	 page 44
Windows startup, or an operation is extremely slow	● Press (F9) in the Setup Utility ( page 36). This will restore the Setup Utility's settings to their default values (except the password settings). Then, the Setup Utility must be run once again for you to input the appropriate operating environment settings. (The processing speed depends on the application software used, so this operation may not cause the processing speed to increase.) ● If operations slow down during streaming playback, try changing the number of colors.
The date and time are incorrect	● You can set the date and time using the following menu: Windows 2000 : [Control Panel] - [Date/Time] Windows XP : [Control Panel] - [Date, Time, Language, and Regional Options] - [Date and Time] ● If you continue to experience problems, the internal battery maintaining the clock may need to be replaced. Contact Panasonic Technical Support. ● When the computer is connected to a LAN, confirm the date and time of the server. ● This computer will not correctly recognize the date and time starting from the year 2100 A.D.
When resuming from the standby or hibernation mode,  does not appear even if a password has been set in the Setup Utility	Use the Windows password as follows: Windows 2000 Set the password in [Control Panel] - [Users and Passwords], then add the check mark for [Prompt for password when computer goes off standby] in [Control Panel] - [Power Options] - [Advanced]. Windows XP Select the account to change in [Control Panel] - [User Accounts] and set the password, then add the check mark for [Prompt for password when computer resumes from standby] in [Control Panel] - [Performance and Maintenance] - [Power Options] - [Advanced].
When the administrator password is forgotten	Windows 2000 After reinstalling, setup Windows and then set the password again. Windows XP If you have created a password reset disk (  "First-time Operation"), a message is displayed when you fail to correctly enter the password. Follow the message's instructions and set the password again by using the password reset disk. If you have not created a password reset disk, after reinstalling, setup Windows and then set the password again.
When the previous item is not the cause	● Press (F9) in the Setup Utility ( page 36). This will restore the Setup Utility's settings to their default values (except the password settings). ● Try removing all peripheral devices. ● Windows 2000 Click [Local Disk(C:)] with the right button in [My Computer], select [Properties], then select [Tools] - [Check Now]. ● Windows XP Click [Local Disk(C:)] with the right button in [start] - [My Computer], and select [Properties], then select [Tools] - [Check Now]. ● At start-up, press (F8) to operate the computer in the safe mode.

● Display

No display after powering on	- When there is no display to an external display, - Check your cable connection to the external display. - Confirm your display is powered on. - Check the settings for your external display. - Confirm the following setting is set to [ON]. Windows 2000 [Control Panel] - [Display] - [Settings] - [Advanced] - [Lynx3DM+] - [CRT] Windows XP [Control Panel] - [Appearance and Themes] - [Display] - [Settings] - [Advanced] - [Lynx3DM+] - [CRT] - Try changing the display by pressing Fn + F3. - When displaying only through an external display, if the computer is shut down by using the standby or hibernation function, there will be no display on the LCD unless the external display is connected when operations are resumed. In this case, connect the external display or press Fn + F3.
The power has not been turned off, but after a certain period of time, there is no display	- Has the computer been set to the power-saving mode? To resume operation of your computer from the condition the power of the display is off (for energy conservation purposes), press any key unrelated to the direct triggering of a selection, like Shift. - To save power, your computer may have automatically entered the standby or hibernation mode. Slide the power switch. - There is a possibility that an external display is set as the display destination. Press Fn + F3 to switch the display destination. - Did you repeatedly and continuously press Fn + F3? Before pressing Fn + F3, make sure the display destination has been completely switched.
The cursor cannot be controlled	Restart the computer by using the keyboard (e.g.,  .
An afterimage appears (e.g., green, red, and blue dots remain on the display) or there are dots not displaying the correct colors	- If an image is displayed for a prolonged period of time, an afterimage may appear. This is not a malfunction. The afterimage will disappear when a different screen is displayed. - High-precision and advanced technologies are necessary in the production of color liquid crystal displays (color LCDs). Therefore, if 0.002% or less of the picture elements either fail to light or remain constantly lit (that is, more than 99.998% of elements are functioning properly), no defect is considered to exist.
The screen becomes disordered	Changing the number of colors of the display may affect the screen. Restart the computer.
The external display no longer displays properly	When an external display not compatible with the power saving mode is used with the computer, the external display may no longer display properly when the computer enters the condition the power of the display is off (for energy conservation purposes). In such cases, turn off the power to the external display.
During simultaneous display, the screen of the external display becomes disordered	Try changing the display by pressing Fn + F3 .
When setting the screensaver, an error may occur during a resume operation	When the computer enters the standby or hibernation mode while the screensaver is running, an error may occur during a resume operation. In such cases, turn off the screensaver or try changing the pattern of the screensaver.
When an MPEG file is being played with Media Player, the display destination cannot be switched using Fn + F3	Set the following setting to [OFF]. Windows 2000 [Start] - [Settings] - [Control Panel] - [Display] - [Settings] - [Advanced] - [Lynx3DM+] - [Stretch] Windows XP [start] - [Control Panel] - [Appearance and Themes] - [Display] - [Settings] - [Advanced] - [Lynx3DM+] - [Stretch]

● Setup Utility

[Enter Password] is displayed	Enter the User Password or Supervisor Password. If you have forgotten it, contact Panasonic Technical Support.
[Advanced] menu can not be registered	Restart the Setup Utility with the Supervisor Password.
All or some items in [Security] menu can not be registered	Restart the Setup Utility with the Supervisor Password.
(F9) does not work	Restart the Setup Utility with the Supervisor Password.

● Shutting Down

Windows cannot be shut down or restarted	● Do not shut down Windows during music playback. ● If a USB device is connected, try removing it.
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● Battery Indicator

The red indicator lights Repeated beeping sound while the computer is in use	The battery level is low. Save your data and power off your computer. After connecting the AC adaptor or replacing the battery pack with a fully charged one, turn your computer on.
The red indicator blinks	● The battery pack or recharging function may be defective. Quickly remove the battery pack and disconnect the AC adaptor, then connect them again. ● If the problem persists, contact Panasonic Technical Support.
The orange indicator blinks	Unable to charge because of an improper temperature range. (👉📖 “Read Me First - Precautions(Battery Pack)”)

● Character Input

Only capital letters are being input	If CapsLock is on, the Caps Lock function is ON. To switch it OFF, press (Caps Lock) .
How to input European characters (ß, à, ç), symbols or Euro Currency Symbol is unclear	Windows 2000 Select [Start] - [Programs] - [Accessories] - [System Tools] - [Character Map]. Windows XP Select [start] - [All Programs] - [Accessories] - [System Tools] - [Character Map]. The Character Map will be displayed. Point to the desired font name and select it.

● Network

Unable to connect to a network	● Confirm that either [Modem] or [LAN] is set to [Enable] in the Setup Utility. ● When using the computer as a network computer, some additional settings may have to be made depending on the usage conditions. We recommend asking your system administrator or the person in charge of the network. ● If the standby or hibernation mode is entered, the computer may have to be restarted.
Windows cannot be shut down or restarted	Was an attempt made to shut down (or restart) Windows while the computer was connected to a network drive using a LAN? With the following procedure, shut down (or restart) Windows after disconnecting the network drive. 1 Windows 2000 Select [My Computer]. Windows XP Select [start], and then select [My Computer]. - Select [Tools] - [Disconnect Network Drive]. - Select all of the displayed network drives, then select [OK].
Windows 2000 When performing a copy operation via a LAN card with a computer on the network, an error message is displayed and the copy operation fails	● The settings for the LAN card you are using may not be optimized. Confirm this with the following procedure. 1 Select the network card you are using from [Network adapters] in [Control Panel] - [System] - [Hardware] - [Device Manager] 2 Select [Advanced], select [Store And Forward] from [Property], then set [Enable] for [Value] if it is set to [Disable] (This item may be unavailable for some types of network cards.) ● Confirm that the computer on the network is operating properly and that the file is not corrupt.

● Connecting Peripherals

Your peripheral does not work (An error occurs while installing the driver)	When you install the driver for a PC Card or peripheral device, be sure to use a driver that is compatible with the operating system. If you use an incompatible driver, malfunction may occur. For information on drivers, contact the manufacturer of the peripheral device you purchased.
The cursor does not move	● Check your mouse connection, then reboot the computer from the keyboard. ● A driver which is compatible with the connected mouse must be installed. If the device does not operate when the driver is installed: In the Setup Utility, set [Touch Pad] to [Disable].
The device will not operate if a different mouse driver is installed.	When you install a different mouse driver, such as IntelliPoint for Microsoft's IntelliMouse, the mouse driver currently installed in the computer must be uninstalled. Use the following procedure to uninstall this driver. 1 Windows 2000 Select [Control Panel] - [Add/Remove Programs] Windows XP Select [Control Panel] - [Add or Remove Programs] 2 Select [Synaptics TouchPad] and follow the on-screen instructions to uninstall the driver.
A PC Card does not work	● Make sure the card is properly inserted. ● Confirm that the card conforms to the PC Card Standard. ● Note that after a driver is installed, the computer must be rebooted. ● Check that the proper port settings have been made. ● Read the PC Card's manual. Or, you may need to call the manufacturer of the PC Card. ● Try removing/reinserting the PC Card by following the proper procedure. (→ page 21) ● Confirm that a driver for your operating system has been installed.
The address map for IRQ, I/O port address, etc. is unclear	Windows 2000 Check the address map by going to [View] - [Resources by type] in [Control Panel] - [System] - [Hardware] - [Device Manager]. Windows XP Check the address map by going to [View] - [Resources by type] in [Control Panel] - [Performance and Maintenance] - [System] - [Hardware] - [Device Manager].
A USB device does not work	● Make sure a driver is installed. ● Contact the manufacturer of the product.

● Disk Operations

Cannot read/write to a floppy disk	● Has the floppy disk been correctly inserted? ● Has the floppy disk been correctly formatted? ● Your floppy disk content may be corrupted.
Unable to write to a disk	Is the floppy disk write-protected?
How to format a floppy disk is unclear	Windows 2000 Select [Format] in [My Computer] - [3 1/2 Floppy (A:)] - [File]. After confirming the disk volume and format type, start formatting. Windows XP Select [Format] in [start] - [My Computer] - [3 1/2 Floppy (A:)] - [File]. After confirming the disk volume and format type, start formatting.
Unable to read/write to the hard disk	● Your drive or file may not have been properly set. ● Check to see if the hard disk is full. If it is full, delete unnecessary files. ● Your hard disk content may be corrupted. Contact Panasonic Technical Support.
When the previous item is not the cause	Try testing another drive or media.

● Touch Pad

Unable to input using the touch pad	● Has the Setup Utility been used to set [Touch Pad] to [Enable]? (→ page 37) ● When mouse drivers are installed, the touch pad is unable to be used. ● Has the touch pad driver been properly installed?
Cannot set the edge motion range	[Perform EdgeMotion only when dragging] in [Pointer Motion] - [EdgeMotion]. Next, set EdgeMotion Region, and then reselect [Perform EdgeMotion when dragging and pointing].

● Sound

The sound is not heard	● Try changing the mute by pressing Fn + F4 or Fn + F6. ● Has the Setup Utility been used to set [Speaker] to [Disable]? (→ page 37)
Volume does not change when Fn + F5 or Fn + F6 is pressed	If the Windows sound function is not active, the volume will not change even if  or  is displayed.
The audio is distorted	Audio distortion may occur when operations are executed by pressing Fn in combination with another key. Stop playing and start again.

● SD Memory Card

Cannot use SD memory card security function	The SD memory card must be set up in order to use the security function. (→ page 24)
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● Fast User Switching Function Windows XP

Some applications do not work properly

When switching to a different user with the Fast User Switching function, the following problems may occur.

- Some applications may not work properly (for example, PDF files may not be printed properly).
- Key combinations with **(Fn)** may not work.
- It may not be possible to set the settings of the display.

If any of the above occur, log on with the administrator authority again, not using the Fast User Switching function, and try the operation once more.

● Others

Computer hangs

- Press **(Ctrl)** + **(Shift)** + **(Esc)** to open Task Manager and close the software application which is not responding.

- After cutting the power by sliding the power switch for more than four seconds, slide the power switch to power on and open the application again.

If the program no longer works normally, delete the program using the following menu:

Windows 2000 : [Control Panel] - [Add/Remove Programs]

Windows XP : [Control Panel] - [Add or Remove Programs]

Then reinstall the program.

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